



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

NR

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,961	02/25/2002	Kenneth A. Peterson	SD-7122	5004

7590

11/05/2002

Timothy D. Stanley
Sandia National Laboratories
MS-0161
P.O. Box 5800
Albuquerque, NM 87185-0161

EXAMINER

THAI, LUAN C

ART UNIT

PAPER NUMBER

2827

DATE MAILED: 11/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/082,961

Applicant(s)

PETERSON ET AL.

Examiner

Luan Thai

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) 42-60 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-41 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 1-41, in Paper No. 4, is acknowledged. Claims 42-60 are withdrawn from consideration as being directed to a non-elected invention.

2. Furthermore, the elected claimed invention contains claims 1-41 directed to the following patentably distinct species of the claimed invention:

- Embodiment I: directed to a package comprising a window bonded directly to a lip recessed inside of the body (e.g., Figure 15C), a second microelectronic device wire-bonded to the second conductor on the second interior ledge and either one of the recitations a, b, or c.

- Embodiment II: directed to a package comprising a window being an encased joint geometry related to the body (e.g., Figure 16), a second microelectronic device wire-bonded to the second conductor on the second interior ledge and either one of the recitations a, b, or c.

- Embodiment III: directed to a package comprising a window being a self-locking geometry (e.g., Figure 19), a second microelectronic device wire-bonded to the second conductor on the second interior ledge and either one of the recitations a, b, or c.

- Embodiment IV: directed to a package comprising a window disposed on the bottom surface of the first sub-stack and extends laterally along the bottom surface of the first sub-stack a sufficient distance beyond the periphery of the first aperture (e.g.,

Figure 20), a second microelectronic device wire-bonded to the second conductor on the second interior ledge and either one of the recitations a, b, or c.

- Embodiment V: directed to a package comprising a window substantially filled the aperture (e.g., Figure 17), a second microelectronic device wire-bonded to the second conductor on the second interior ledge and either one of the recitations a, b, or c.

- Embodiment VI: directed to a package comprising a window bonded directly to a lip recessed inside of the body (e.g., Figure 15C), a second microelectronic device flip-chip bonded to the second conductor on the second interior ledge and either one of the recitations a, b, or c.

- Embodiment VII: directed to a package comprising a window being an encased joint geometry related to the body (e.g., Figure 16), a second microelectronic device flip-chip bonded to the second conductor on the second interior ledge and either one of the recitations a, b, or c.

- Embodiment VIII: directed to a package comprising a window being a self-locking geometry (e.g., Figure 19), a second microelectronic device flip-chip bonded to the second conductor on the second interior ledge and either one of the recitations a, b, or c.

- Embodiment IX: directed to a package comprising a window disposed on the bottom surface of the first sub-stack and extends laterally along the bottom surface of the first sub-stack a sufficient distance beyond the periphery of the first aperture (e.g.,

Art Unit: 2827

Figure 20, a second microelectronic device flip-chip bonded to the second conductor on the second interior ledge and either one of the recitations a, b, or c.

- Embodiment X: directed to a package comprising a window substantially filled the aperture (e.g., Figure 17), a second microelectronic device flip-chip bonded to the second conductor on the second interior ledge and either one of the recitations a, b, or c.

Noted that the recitations are following:

Recitation a): reciting the window comprising transparent material selected from the group consisting of glass, sapphire, clear plastic, and clear polymer.

Recitation b): reciting the window comprising material selected from the group consisting of silicon, metal, metal alloy, lithium niobate, etc.

Recitation c): reciting the window comprising material selected from the group consisting of barium fluoride, calcium fluoride, magnesium fluoride, etc.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1 and 21 are generic of the group of claims 1-20 and the group of claims 21-41, respectively.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim

Art Unit: 2827

is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

3. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement is traversed (37 CFR 1.143).

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

Art Unit: 2827

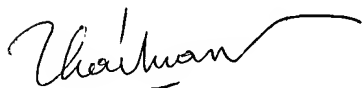
remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luan Thai whose telephone number is (703) 308-1211.

The examiner can normally be reached on 7:00 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Talbott can be reached on (703) 305-9883. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Luan Thai
October 24, 2002